REMARKS/ARGUMENTS

Claims 1-15 and 18-21 are pending in the captioned application. Applicants have amended claim 1. Applicants respectfully request reconsideration and allowance of claims 1-15 and 18-21 in view of the following arguments.

Claims 1-15 and 18-20 are rejected as being unpatentable under 35 U.S.C. §103(a), over Wagner et al. (WO 2001/72458) in view of Bosman et al. (WO 1999/00670), Barner et al. (US 5986066), Badley et al. (US 6294391), Nelson et al. (US 5955729) and Nock et al. (US 2002/0049152 A1). Applicants respectfully disagree.

Applicants have further amended the claims in view of the Examiner's response. In particular, the claims are amended to clearly state that the second form of binding occurs between the reactive groups and the non-tag part of the biomolecules.

Applicants argued that Bosman et al. do not teach that the second form of binding occurs between non-tag part of the biomolecules and activated reactive groups of the immobilization substrate. In the response to arguments, the Examiner states that this is not persuasive. The Examiner points to the language of claim 1 which stated that "activated reactive groups which are capable of forming covalent bonds with the non-tag part of the biomolecule or biomolecules". The Examiner states that this language does not specify that the second bond must be to the non-tag part of the biomolecules. In response, Applicants have amended claim 1 to remove the language objected to.

The Examiner regards that the dependent claims do clearly state that while one interaction is between the tag on the biomolecules and the tag-binding portion of the substrate, the second bond is not related to the tag, rather, "a covalent bond between reactive groups and non-tag portions of the biomolecules." However, the Examiner states that this type of multiple binding is known in the prior art. The Examiner cites Nock et al. as proof "that biomolecules with multiple, concurrent forms of binding to supports and other compounds of interest was known in the art, including binding of tags with concomitant covalent binding, as well as other bonds forming the ability to add additional partners."

In response, Applicants submit that Nock et al. do not show binding of a biomolecule to a support surface by both a tag and a covalent bond. It is clear from the figures that only one binding to the surface is used. Nock et al. discusses that the group Z of the trifunctional linker is used for immobilization to the support (Paragraph 0100, also see page 6 of the Office action). While Nock et al. teach that a protein can be linked with another composition through both tag recognition and covalent binding, Applicants submit that there is no teaching in Nock et al. that such is possible for attaching a protein to an "immobilization substrate". On the contrary, Nock et al. teaches away from the present invention in that all the described embodiments only contain one bond to a solid support.

Furthermore, Applicants submit that as discussed in the specification, the invented method provides improved and unexpected result. "(T)he method permit the formation of covalent bonds between the biomolecule and the immobilization matrix

even in the case where the biomolecule to be immobilized could not be brought into proximity with the immobilization matrix in a sufficiently high concentration using conventional methods." (paragraph 0081 of the published US application). This is exemplified in the contrasting results of Comparative Example 4 and Practical Example 1. It is further exemplified in Practical Example 12.

Applicants submit that the amended claims are not rendered obvious by the references separately or combined.

Applicants respectfully assert that the claims are in allowable form and earnestly solicit the allowance of claims 1-15 and 18-21.

Early and favorable consideration is respectfully requested.

Respectfully submitted,

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